

WHAT IS CLAIMED IS:

1. A method of forming a transparent conductive layer on a substrate,
comprising the steps of:

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providing a transparent conductive layer on a temporary substrate, wherein
the temporary substrate has a flat surface and the transparent conductive layer has a
first side attached on the flat surface of the temporary substrate and a second side
opposite to the first side;

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providing a substrate on the second side of the transparent conductive layer,
and

removing the temporary substrate.

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2. The method as defined in claim 1, further comprising the step of
patterning the transparent conductive layer.

3. The method as defined in claim 1, further comprising the step of
20 providing an insulation layer between the second side of the transparent conductive
layer and the substrate.

4. The method as defined in claim 3, further comprising the step of
providing an adhesive layer between the substrate and the insulation layer.

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5. The method as defined in claim 4, wherein the adhesive layer has a suitable flexibility.

6. The method as defined in claim 1, further comprising the step of
5 providing an adhesive layer between the second side of the transparent conductive layer and the substrate.

7. The method as defined in claim 6, wherein the adhesive layer has a suitable flexibility.

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8. The method as defined in claim 1, wherein the temporary substrate is removed by a grinding process first, and then by an etching process

9. The method as defined in claim 1, wherein the flat surface of the
15 temporary substrate has an average surface roughness less than 10 nm.

10. The method as defined in claim 1, wherein the first side of the transparent conductive layer has an average surface roughness less than 1 nm.

20 11. The method as defined in claim 1, wherein the first side of the transparent conductive layer has an average surface roughness less than 0.5 nm.